

6-21-2011

Singled Out: The Human Cost of Intensive Agriculture

Céline Taillefer

The University of Western Ontario

Follow this and additional works at: <http://ir.lib.uwo.ca/totem>



Part of the [Social and Cultural Anthropology Commons](#)

Recommended Citation

Taillefer, Céline (2004) "Singled Out: The Human Cost of Intensive Agriculture," *Totem: The University of Western Ontario Journal of Anthropology*: Vol. 12: Iss. 1, Article 11.

Available at: <http://ir.lib.uwo.ca/totem/vol12/iss1/11>

This Article is brought to you for free and open access by Scholarship@Western. It has been accepted for inclusion in Totem: The University of Western Ontario Journal of Anthropology by an authorized administrator of Scholarship@Western. For more information, please contact kmarshal@uwo.ca.

Singled Out: The Human Cost of Intensive Agriculture

Keywords

intensive agriculture, monoculture, chemicals, fair trade, subsistence farming

Creative Commons License



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License](https://creativecommons.org/licenses/by-nc-nd/3.0/).

Singled Out: The Human Cost of Intensive Agriculture

Céline Taillefer

Since the beginning of the domestication process over 12, 000 years ago, we have come to deeply rely on agriculture. We eat the food it produces, and many people's livelihoods depend on it. Modern agriculture is frequently done in large fields in developing nations, made up of a single product to maximize profits for exports. Since singly-cropped foods are more susceptible to pests and disease, they are often heavily sprayed with chemicals, or genetically manipulated. This is what is known as *intensive agriculture* or *monocultures/monocropping*. There is a grave impact of intensive monoculture on the labour force and environment of host countries; too often, those who advocate and use modern agriculture fail to take into account essential economic and sociopolitical factors, and often harms those involved, especially at the labour level. The dangerous chemicals needed to sustain intensive monoculture, as well as economic and social instability of intensive agriculture are intrinsic problems with the system of mono-cropping. There is a distinct "web of causality" (Vandermeer & Perfecto 1995:17) that must be understood; we must acquire an understanding of the factors that influence modern agriculture in order to design better methods of providing the earth's citizens with food and employment. If we examine the flaws of intensive mono-cropped agriculture, and consider some different systems such as subsistence farming, fair-trade and values-based labeling, we can determine if there are more environmentally and socially sound systems that could be put into practice. These new systems show an improved awareness of the deeper issues of modern agricultural structures. While subsistence, fair-trade and values-based labeling do not offer a catch-all solution to the issue at hand, they are a means towards providing agricultural labourers with more economic stability than is provided under the current system, as well as providing consumers with higher standard products that are more environmentally sound. These concepts open the door to a completely new world of agriculture, one that is chemically, economically and environmentally secure.

The Chemical Workers

The negative effects of chemical pesticides used in intensive agriculture are well documented. In *Community and Capital*, Moberg notes that banana labour in the tropics is especially dangerous due to the "chemically intensive nature of the industry" (Moberg 1998:83). In the late 1990s, 2000 banana labourers who were rendered sterile by the chemical DBCP (dibromochloropropane) in the 70s raised a case against the Standard Fruit Company (Vandermeer & Perfecto 1995:6). Other consequences of pesticide usage on human health include: headaches, digestive and respiratory difficulties, eye problems and high cancer rates (Waridel 2002:49). Frequently, chemicals are improperly handled by unskilled labourers who cannot read the warnings on labels, and safety equipment is rarely used (Waridel 2002:48). Also, chemicals spread much further than the place of application, as far as the Arctic Circle (Bentley & O'Neil 1997:296) in some cases. The use of chemicals is widespread due to the singular nature of intensive agriculture, which is vulnerable to pests and disease. Some form of pest control is necessary to maintain the crops, and chemicals are cheap, especially if governments have subsidized the pesticides (Altieri *et al.* 1997:306). Pesticide use is no solution to pest control; often, the evolution of new, resistant pests requires the use of even more chemicals, keeping farmers at the mercy of chemical companies in a perpetual cycle (Bentley & O'Neil 1997:287).

The growth of the biotechnology industry, such as an increase in the use of genetically modified organisms (GMOs), presents new problems with pest control. While corporations claim that transgenic crops containing pesticides will be cleaner and more efficient (Altieri *et al.* 1997:307) and are necessary to the production of the world's food, the negative aspects of GMOs far outweigh any positive features. Not only will transgenic crops be more expensive, they will also encourage faster resistance mutations within pest colonies (Altieri *et al.* 1997). Certain transgenic crops will increase a farmer's dependency on chemicals, such as coffee plants that stop ripening until they are sprayed with ethylene (Waridel 2002:35). Also, the effects of transgenic pest control on an ecological scale are still uncertain; there is no way of knowing how the crops will behave or affect the surrounding environment once unleashed. Similar to chemicals, once the transgenic crops have been

released into nature, controlling them is extremely difficult, if not impossible. It seems as though biotechnology has devoted itself to looking for a solution to the wrong problem: pest control is not the issue, but intensive monocultures are. Monocultures lack "ecological defense mechanisms" (Altieri *et al.* 1997:304) and thus pest levels rise. Biotechnology "develops single-gene solutions for problems that derive from a monocultural farming system, designed on industrial models of efficiency" (Levidow & Carr 1997:33). Rather, biotechnology should set its sights on ways to combine its benefits with sustainable agriculture, and so we must examine the social issues that allow intensive agriculture to continue on such a widespread scale.

Job (In)security

In order for intensive monocultures to be productive, large labour forces are necessary to plant, weed, and harvest the crops. Often, workers are local landless peasants who must provide for their families, along with imported labourers from other countries (Vandermeer & Perfecto 1995:63; Waridel 2002:44). However, due to the singular nature of monocultural plantations, like coffee and bananas, these enormous labour forces are often laid off when the plantation falls to disease, or tumbling market prices. Mark Moberg states:

To contend with the [Panama] disease, the banana companies established widely dispersed plantations of tens of thousands of acres each (known as 'divisions'), only to abandon them as each fell prey to infection (1998:71)

As each of these plantations were abandoned, many workers were left without jobs, and with acres of useless land, riddled with chemicals and impossible to farm. Yet, in spite of a lack of jobs, these labourers still need some way to make ends meet. In *Breakfast*, Vandermeer and Perfecto note "it would take enormous naiveté to suppose that when their survival is at stake, these landless peasants will not begin cutting forest in the biological preserves" (Vandermeer & Perfecto 1995:11).

However, gaining jobs for these landless peasants is difficult, and its difficulty is compounded by the Third World locations of many of these monocultures. Vandermeer and Perfecto explain that the "underdevelopment of the Third World is a consequence of the development of the First World" (Vandermeer &

Perfecto 1995:83), and follow this statement with a detailed discussion on 'articulated' and 'disarticulated' economies. To sum up, in First World nations, company owners desire cheap labour, but they also want their labourers to be consumers of the product they are producing. Therefore, they create a balance for the cheapest possible wage that will still allow the company to sell more products. However, in the Third World, there is no such need to balance the wages, for all the products are being exported for sale in the First World, and thus, the labourers are paid as cheaply as possible (Vandermeer & Perfecto 1995:85-87). Agriculture no longer focuses on providing native populations with food, but rather producing goods for an international market (Bennholdt-Thomsen & Mies 1999:39), which creates a food security crisis. On banana plantations in the Dominica, the small-scale farmers switched from local crops to fields of export banana crops, despite being "the sole producers of food crops and vegetables for the domestic market" (Marie: 1979:19). Not only do monocultures create landlessness, and prevent native populations from farming their own food, but they also pay wages so small, it is difficult for them to buy imported food as well.

Unfortunately, attempts to solve this problem have focused on the wrong issues. Many conservation programs, while noble in intent, often ignore the deeper sociopolitical aspects of deforestation. For example, Costa Rica has put enormous efforts into preserving its natural rainforests from deforestation and pollution (Vandermeer & Perfecto 1995:106), but Costa Rican peasants were still concerned with their own landlessness, and inability to pay mortgages on the land they were 'loaned' from the government. Meanwhile prior to 1989, due to an agrarian reform in Nicaragua, landlessness was not a concern for Nicaraguan peasants, but job security was (Vandermeer & Perfecto 1995:120). Instead of conservation projects, Vandermeer and Perfecto espouse a system that maintains sustainable conditions of production, instead of a vision of islands of 'pristine' forest surrounded by chemical-drenched monoculture (Vandermeer & Perfecto 1995:122).

These are but a few of the social issues surrounding modern intensive agriculture; however, they are extremely important ones. By understanding the desperation of the labourers involved in modern agriculture, we can see more clearly why the system as a whole needs to be

reworked. Subsistence agriculture, fair-trade agreements and values-based labeling systems, seek to undermine the social and economic difficulties facing workers of intensive monocultures, and provide them with a better means of life.

Towards a Better Life?

There are many benefits to rejecting an intensive agricultural system; to begin with, there are ecological and social benefits to multi-agricultural production. A plot planted with a variety of forms of foodstuffs (ie: lentils, barley and cassava) provide a rich habitat for natural pest enemies to reside in, decreasing the farmers reliance on chemical/biotechnological pest control (Bentley & O'Neil 1997:284, Waridel 2002:147). Subsistence crops are also more economically viable for the locals: "it is widely believe that a diverse assemblage of crops in a multiple cropping system reduces market risk" (Vandermeer & Perfecto 1995:131). For example, a glut of intensively mono-cropped coffee beans allows the market price of coffee to drop so low it cannot even cover basic production costs (Waridel 2002:2-3), resulting in many lay-offs. However, if coffee plants are grown with trees for shade, or corn grown with soybeans to preserve soil fertility, then farmers have another resource to fall back on in the case of such a glut, not to mention through smaller multiple crops, there is a lessened chance the market will be flooded.

Fair trade coffee works with this principle- it allows small-scale farmers to own the means of their coffee production, rather than a transnational corporation (TNC) owning it and hiring the farmers for work. These small producers receive a better price for their work, and consumers show their support for sustainable programs, and environmental conservation (Waridel 2002:63). Fair trade is a means of "countering the organization of world trade around abstract market principles that devalue and exploit disadvantaged peoples" (Murray & Raynolds 2000:66). However, fair trade is not as simple as removing TNCs from developing countries, and instating alternative trade organizations, just as land conservation programs in Costa Rica are not the answer to the environmental devastation caused by intensive agriculture. Consumers must be educated about the fair trade process, and encouraged to move beyond self-interest in purchasing (Murray & Raynolds 2000:67). For coffee, some fair trade brands can be cheaper, due to a lack of

intermediaries (Waridel 2002:100), and points out the hypocrisy of condemning big corporations, while searching for the cheapest deal (Waridel 2002:121). As the alternative trade market grows, corporations are beginning to present 'images' of social consciousness and environmental responsibility, in hopes of cutting into the fair trade market, but consumers must be wary (Murray & Raynolds 2000:67, Waridel 2002:105-106). Fair trade requires a re-working of the international trade market, so that it provides "a just return, continuity of income and decent working conditions for disadvantaged producers through sustainable development" (Murray & Raynolds 2000:68).

Values-based labeling is one means of alerting consumers to more representative 'costs' of the products they purchase. If all the environmental and social costs were reflected in the product price, then people would naturally select more sustainable produced goods, which would be much cheaper (Waridel 2002:24). Current capitalist markets require us to ignore a certain connection with nature and with each other, so we act primarily on self-interest (Barham 2002:351). Values-based labeling, like fair-trade options, encourages consumer awareness of the links that tie us together, and thus, encourages market growth of alternative, sustainable-developed products. By focusing on this form of labeling as a social movement, Barham also encourages a reevaluation of the free market, and its inability to address certain issues (Barham 2002:358).

Conclusion

Alterations need to be made in the international market to give both the environment and intensive agriculture labourers a fair change. Sustainable development, fair trade and values-based labeling are but a few ways to change the 'web of causality' of monocultures that lead to impoverishment, food insecurity and landlessness. These issues require a depth of understanding, and a revolution of consumer awareness in order for changes to occur in the current system. However, it's not impossible: fair-trade companies, such as Equal Exchange and Just Us!, as well as the recent addition of fair trade coffee to the Starbucks line-up implies that consumer power does make a difference in the world market.

There are many inequalities perpetuated in the world, and the effects of intensive agriculture on its labourers in developing countries is but one of them. Change will not be

simple, but even as illustrated in the bare-bones examination laid out in this paper, there are possibilities for change. Like the establishment of any new system, change will be difficult. Many labourers do not have the money or the land to establish diverse, sustainable crops; many workers do not have the means or education to open their own fair trade cooperative. The current system of intensive agriculture, export zones and capitalistic economy is pervasive. As a result, change in intensive agriculture is likely to be slow and difficult. Similarly, change from the consumer end of things is also constrained by consumers who want to make ethical purchases but may not have the capacity financially, or a lack of information regarding organic and fair-trade products. However, with combined efforts from both the bottom and the top, positive changes can be wrought. The involvement of non-governmental organizations and other development agencies can further contribute to the possible advance of sustainable, fair-trade agriculture. Change is possible, but it will require work at the root of the web and the involvement of many, rather than dominion by a few. trade and values-based labeling are but a few ways to change the 'web of causality' of monocultures that lead to impoverishment, food insecurity and landlessness. These issues require a depth of understanding, and a revolution of consumer awareness in order for changes to occur in the current system. However, it's not impossible: fair-trade companies, such as Equal Exchange and Just Us!, as well as the recent addition of fair trade coffee to the Starbucks line-up implies that consumer power does make a difference in the world market.

Bibliography

- Barham, Elizabeth 2002. Towards a theory of values-based labeling. *Agriculture and Human Values* 19: 349-360
- Bennholdt-Thomsen, Veronika and Maria Mies. 1999. *Subsistence Perspective*. New York: Zed Books.
- Bentley, Jeffery I. and Robert J. O'Neil 1997. On the ethics of biological control of insect pests. *Agriculture and Human Values* 14: 283-289
- Levidow, Les and Susan Carr 1997. How biotechnology regulation sets a risk/ethics

boundary. *Agriculture and Human Values*. 14: 29-43.

Marie, J.M. 1979. *Agricultural Diversification in a Small Economy- The Case for Dominica*. Eastern Caribbean: Institute of Social and Economic Research.

Miguel, A. Altieri *et al* 1997. Biological control and agricultural modernization: Towards resolution of some contradictions. *Agriculture and Human Values*. 14: 303-310.

Moberg, Mark 1998. "Local Strategems, Global Spoils: Monopoly Power and Contract Farming in the Belize Banana Industry". In *Communities and Capital: Local Struggles Against Corporate Power and Privatization*. Collins and Wingard, (eds). London: The University of Georgia Press.

Murray, Douglas L. and Laura T. Raynolds 2000. Alternative trade in bananas: Obstacles and opportunities for progressive social change in the global economy. *Agriculture and Human Values*. 17: 65-74

Vandermeer, John and Ivette Perfecto. 1995. *Breakfast of Biodiversity: The Truth about Rainforest Destruction*. Oakland: The Institute for Food and Development Policy.

Waridel, Laure. 2002. *Coffee with Pleasure: Just Java and World Trade*. Montreal: Black Rose Books.